

## ABSTRACT

A hydrocarbon containing formation may be treated using an in situ thermal process. A mixture of hydrocarbons, H<sub>2</sub>, and/or other formation fluids may be produced from the formation. The produced mixture may include non-condensable hydrocarbons having carbon numbers of less than 5. The weight percentage of non-condensable hydrocarbons with carbon numbers from 2 to 4 may be large as compared to methane weight percentage within the non-condensable hydrocarbons. The olefin content of non-condensable hydrocarbons may be relatively low.